

FIG. 1A

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1 GTTTTCAAAA TCGGTGGAGG TGCAATGAAAA AGTTATTGGG CATTTTTGAA AAATAAAAAA
61 ATATCAATAA GTTGGAGTC TTACCGAATT TTTATACTTA TTTGTTTAGA ATGAACCTTA
-35 -10
121 TAACATAGTT GGATAGAGTT TTCACTTAA TACATTAAT GTGAACCTTG CTACAACAAG
181 ATGTGCATCA GAAGGAGTGG TTTAATAATC --sarR--TAA
Ribosomal binding site [SEQ. ID. No. 1]

FIG. 1B

| | | | | | | | |
|------|--|----|----|----|-----|-----|------------------|
| | 10 | 20 | 30 | 40 | 50 | | |
| SarR | M--SKINDINDLVNATFQVKFFRDTKKFKNLNYEEIYILNHILRSESNEISSKELAKCS | | | | | | |
| SarA | MAITKINDCFELLSMVTYADKLKSLIKKEFSISFEFAVLTYISENKEKEYYLKDIINHL | | | | | | |
| | 60 | 70 | 80 | 90 | 100 | 110 | |
| SarR | EFKPYYLTKAQQLKDLKLLSQKRILQDERTVIVYVT----- | | | | | | DTLKANIHKLISELEE |
| SarA | NYKQPQVVKAVKILSQEDYFDKKRNEHDERTVLILVNAQQRKKIESLLSRVNKRITEANN | | | | | | |

SarR YIKN

SarA EIEL

SarR = SEQ ID No. 2

SarA = SEQ ID. No. 3

FIG. 1C

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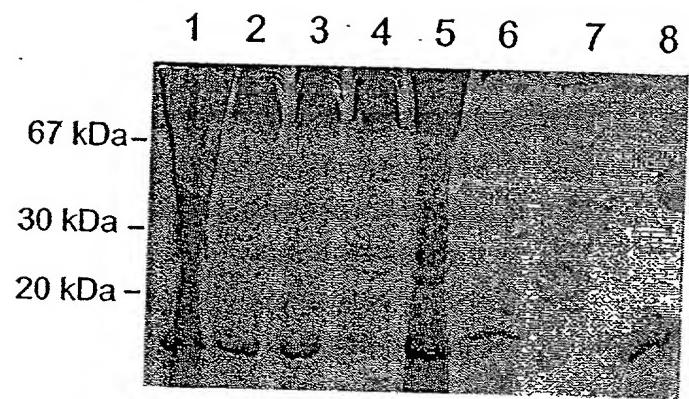


FIG. 2

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FIG. 3A PCR

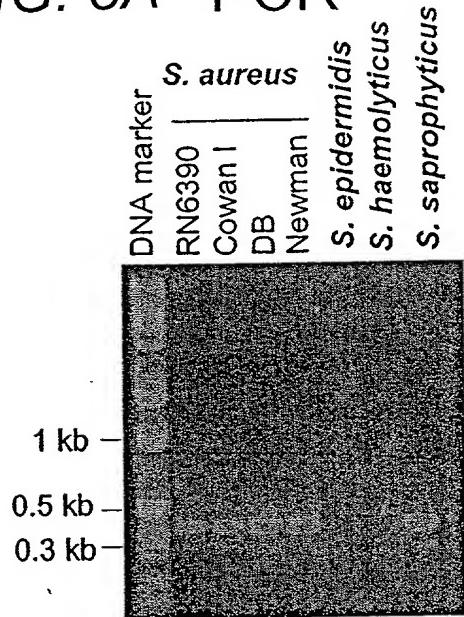


FIG. 3B Southern

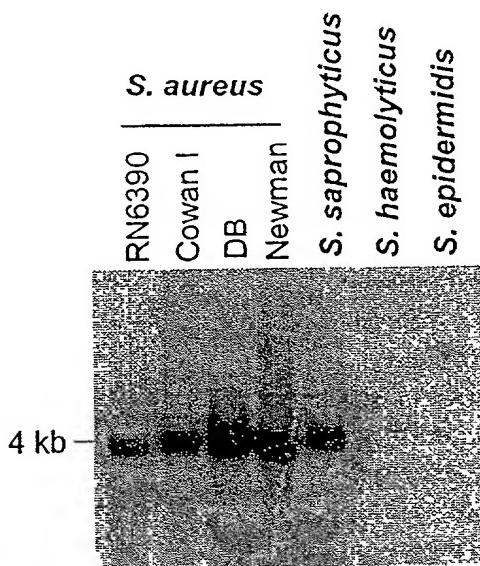


FIG. 3C Northern

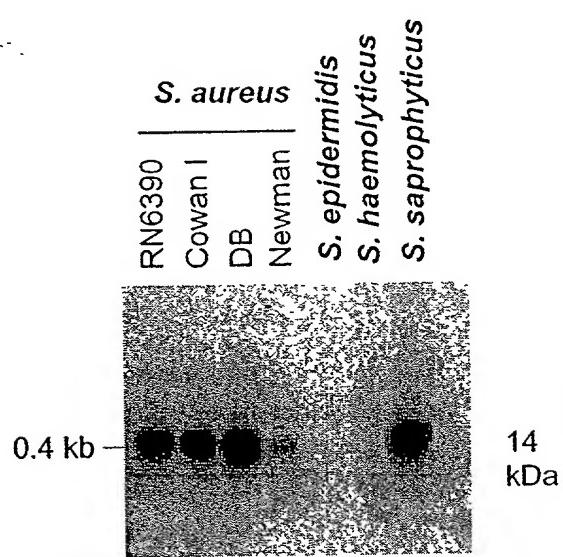
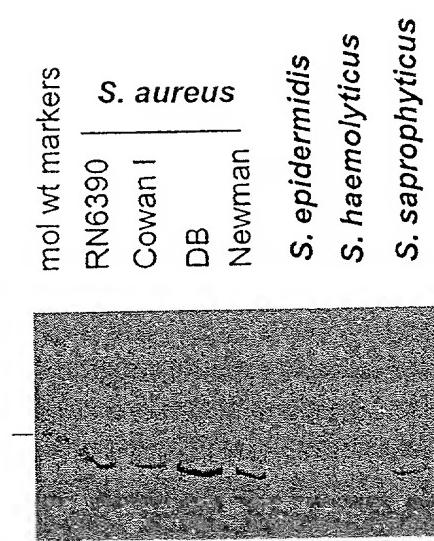


FIG. 3D Immunoblot



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FIG. 4A

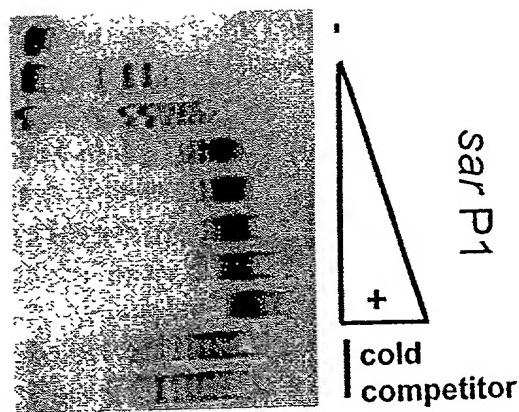


FIG. 4B

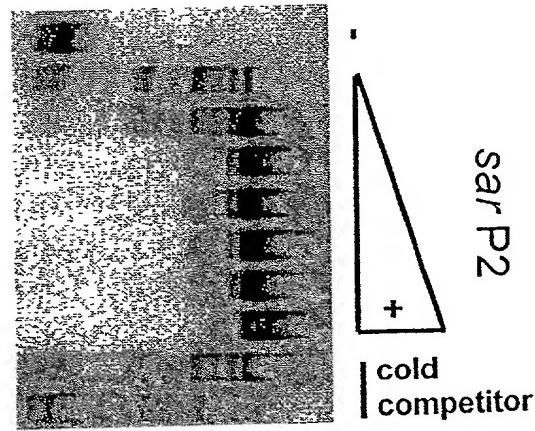
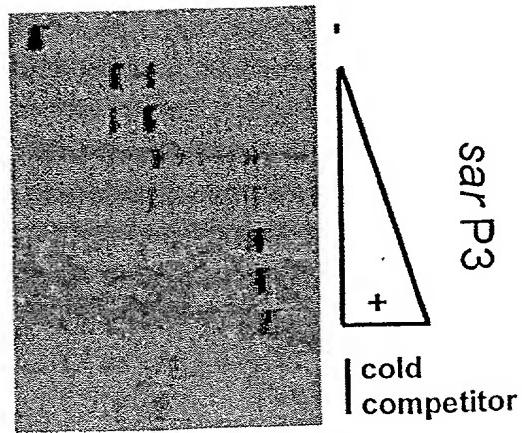
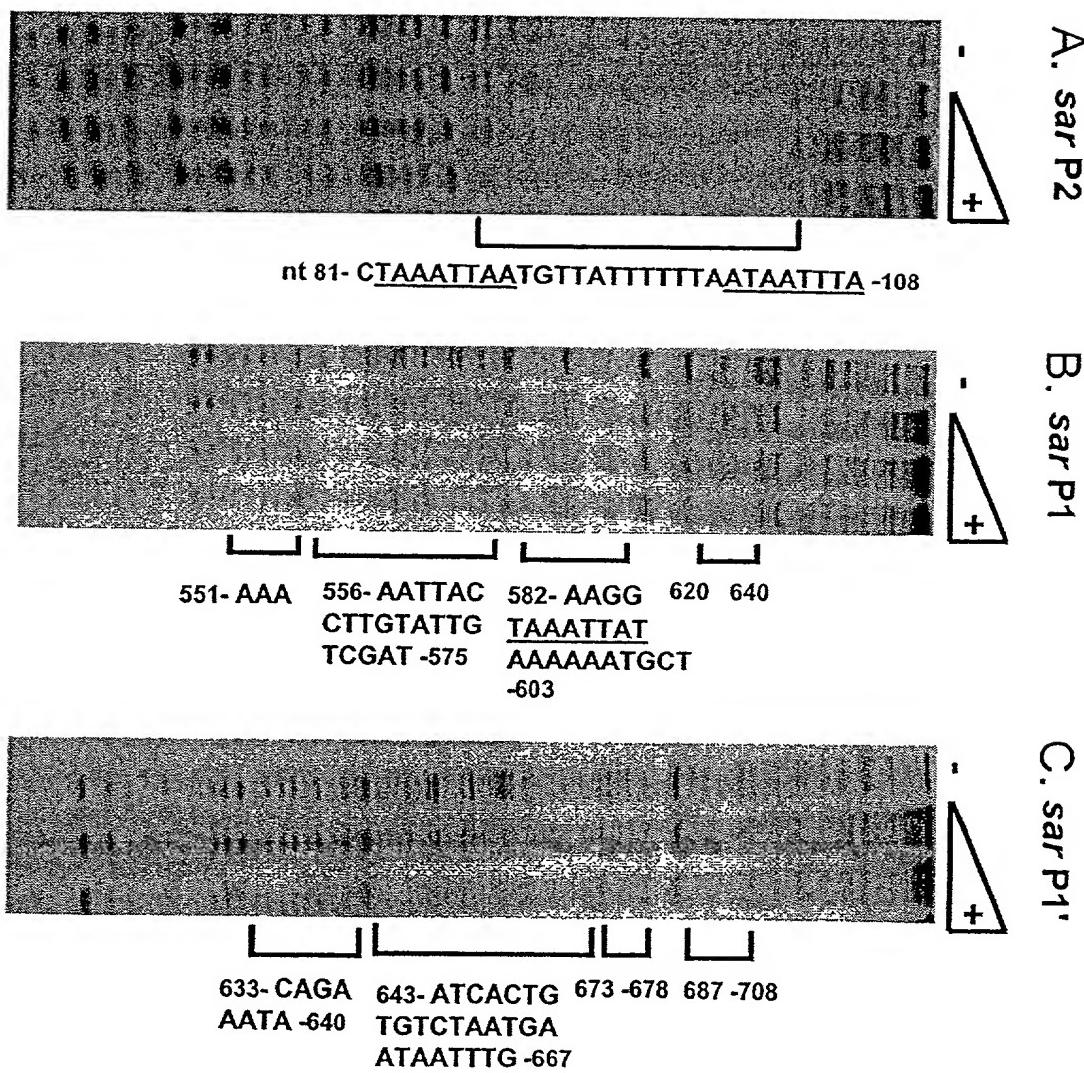


FIG. 4C



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FIG. 5



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FIG. 6A

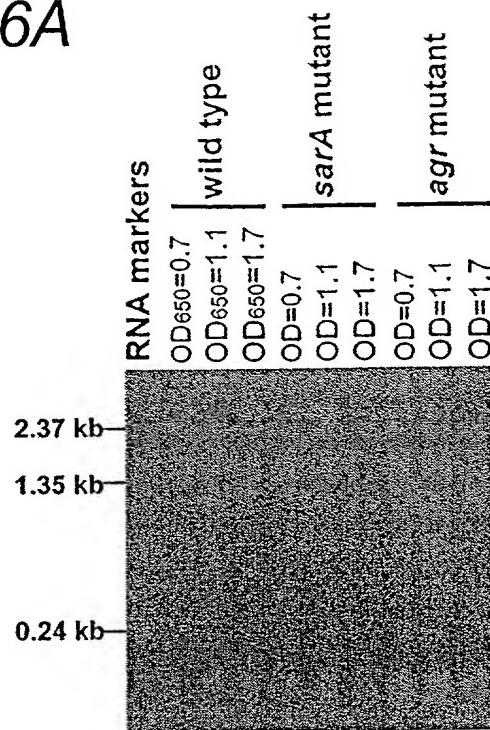


FIG. 6B

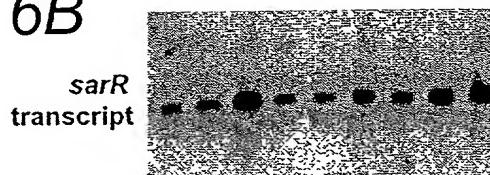


FIG. 6C

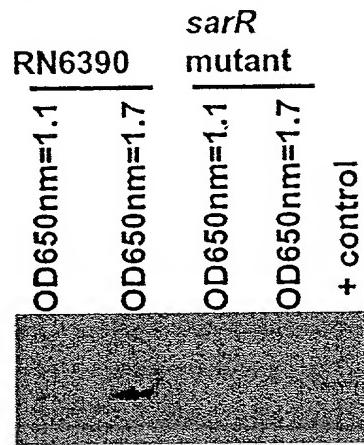


FIG. 7A

sar P1

RN6390
sarR mutant

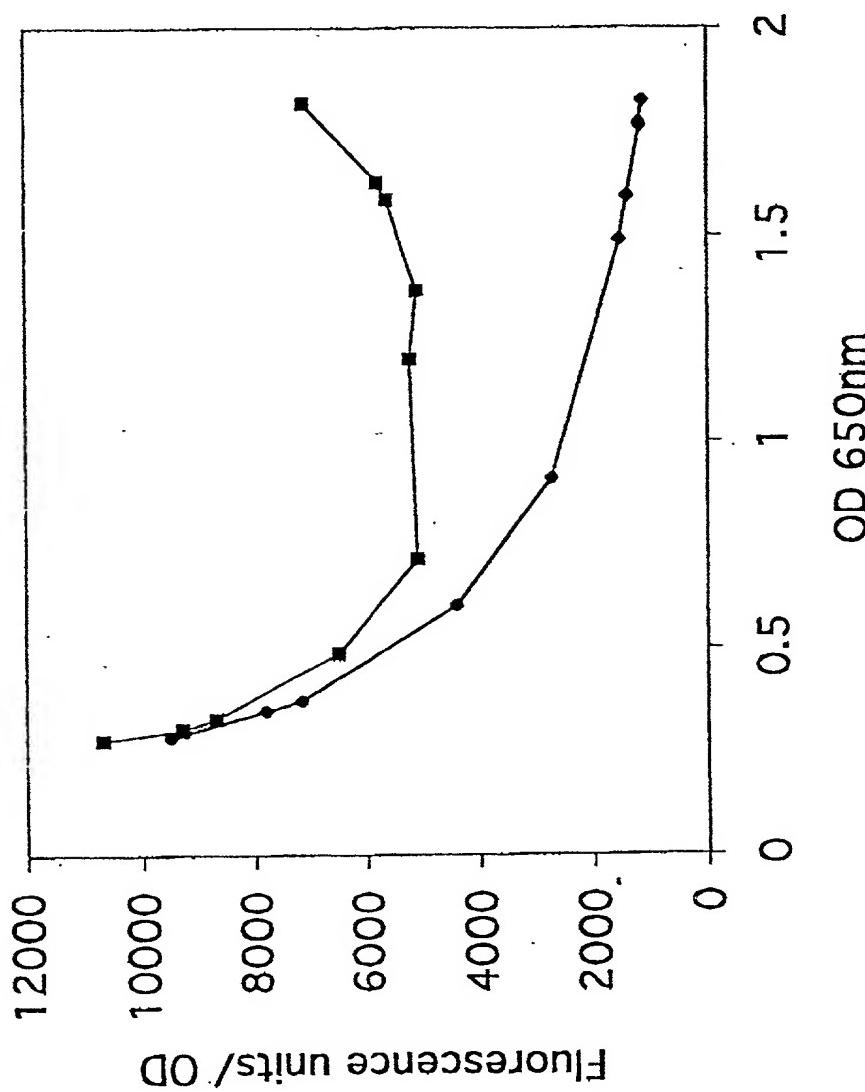
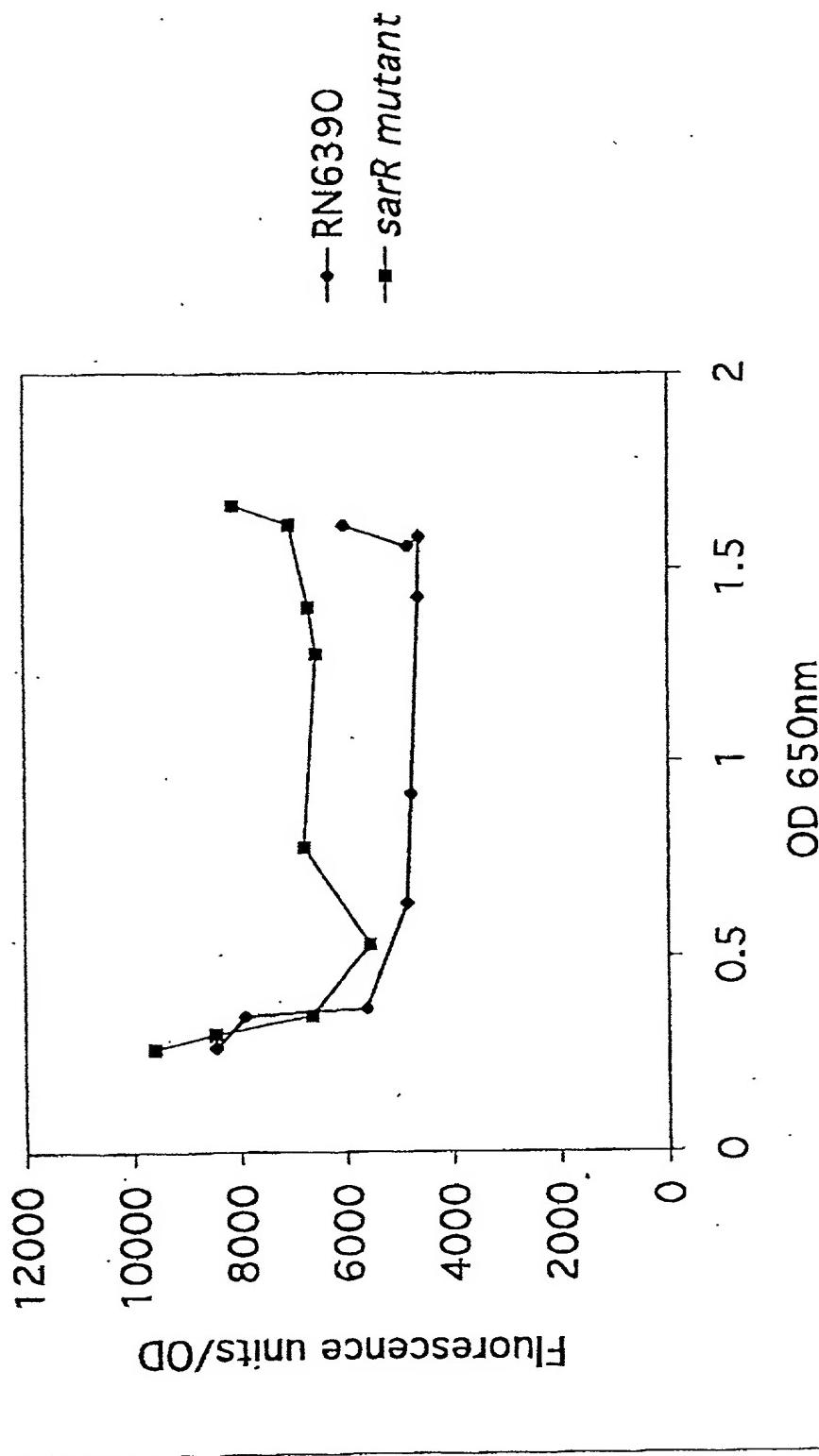


FIG. 7B

sar P2P3P1



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10
15

FIG. 8A: *sar* probe

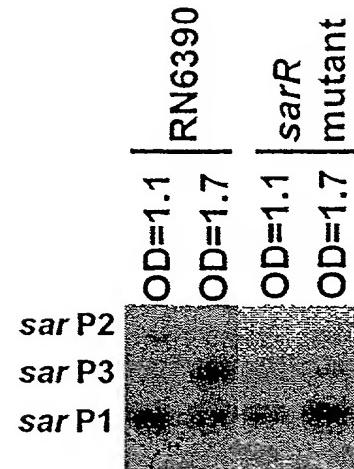


FIG. 8B: anti-SarA antibody

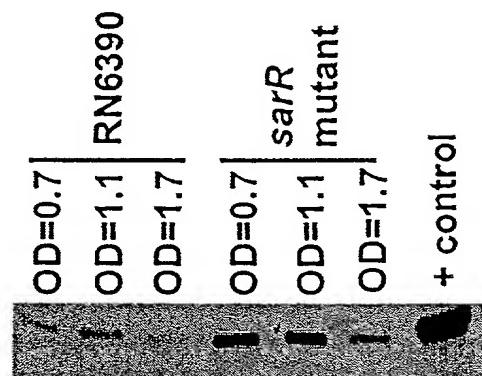
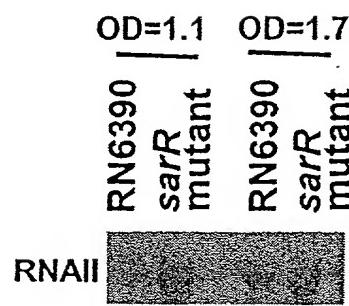


FIG. 8C: *agrA* probe



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FIG. 9A

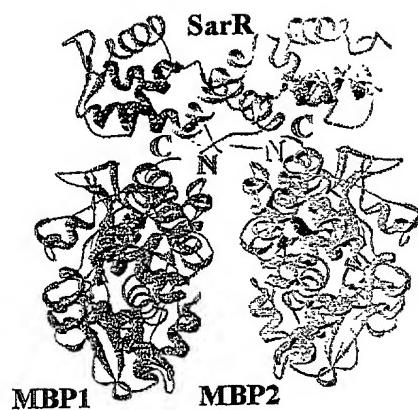
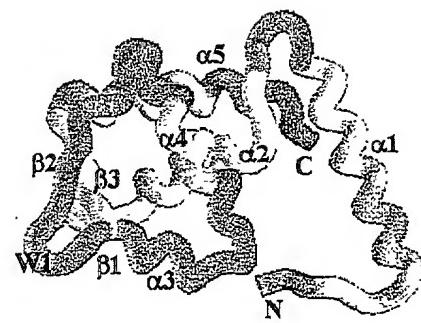
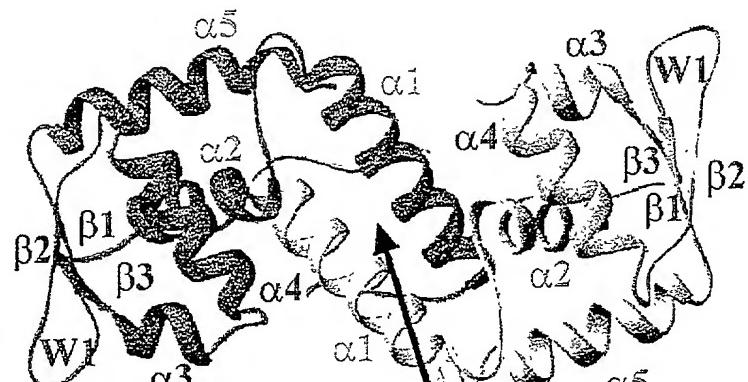


FIG. 9B



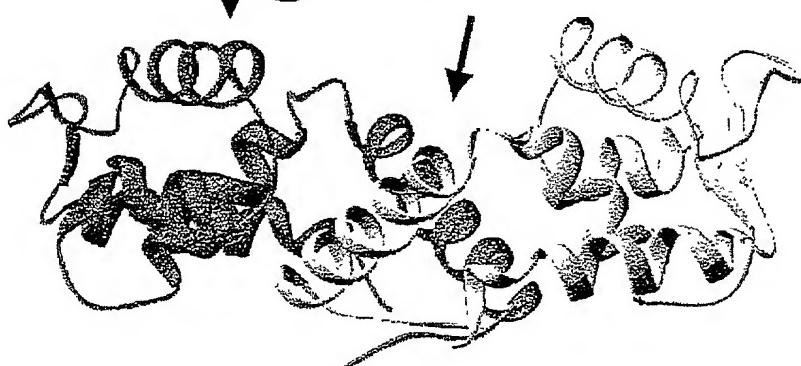
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FIG. 10A



↓ 90° Canyon

FIG. 10B



↓ 90°

FIG. 10C

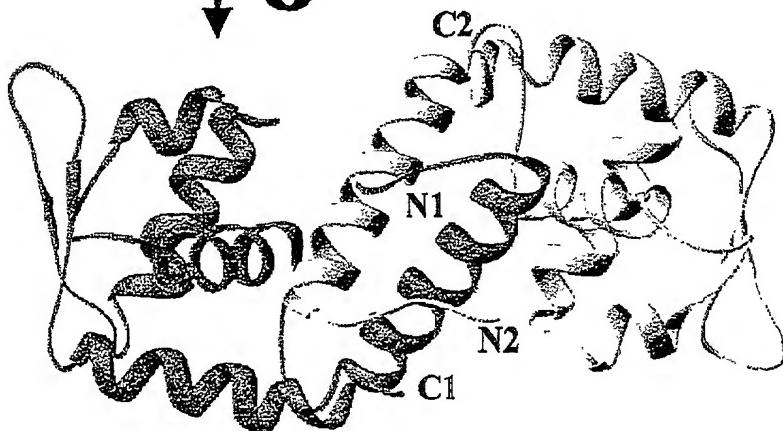
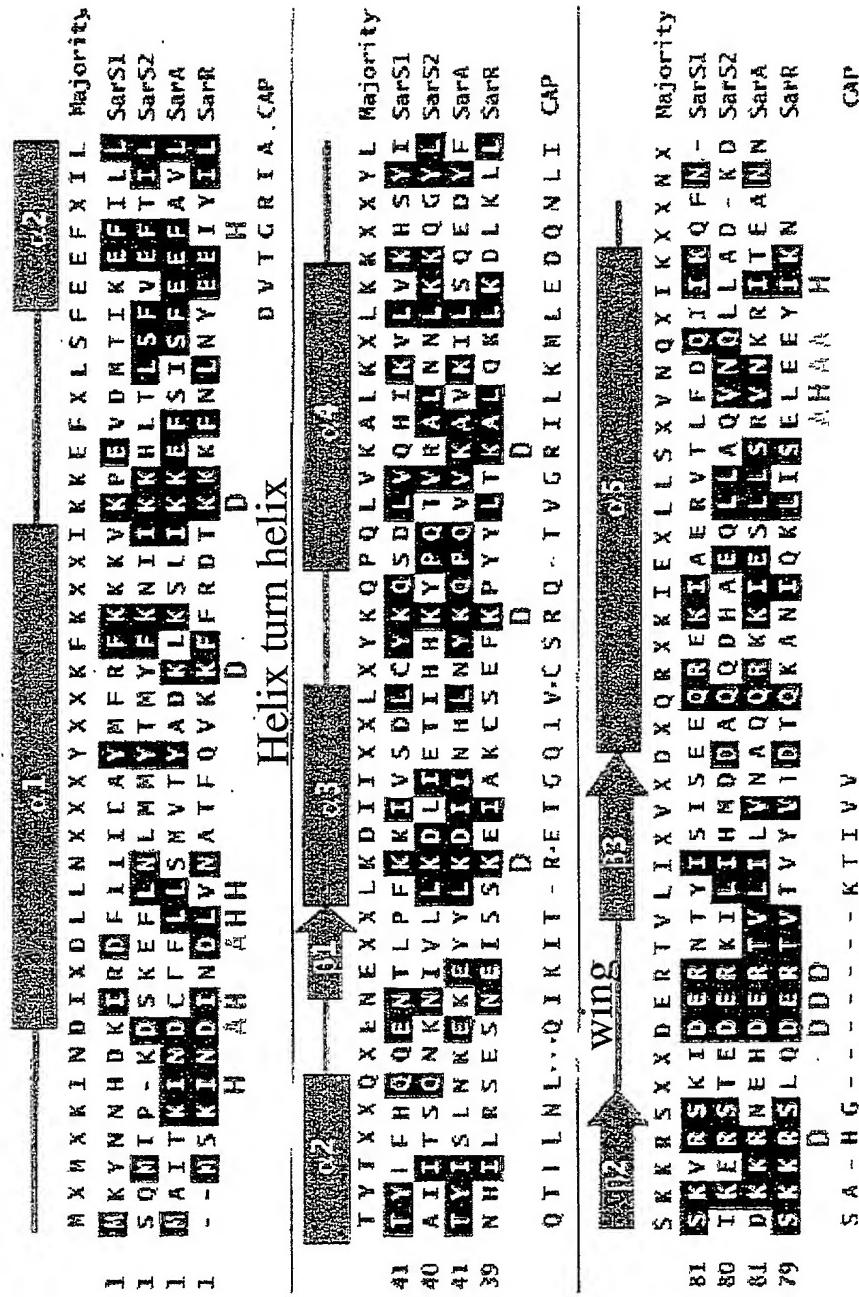


FIG. 11

Alignment of the SarA Homologs

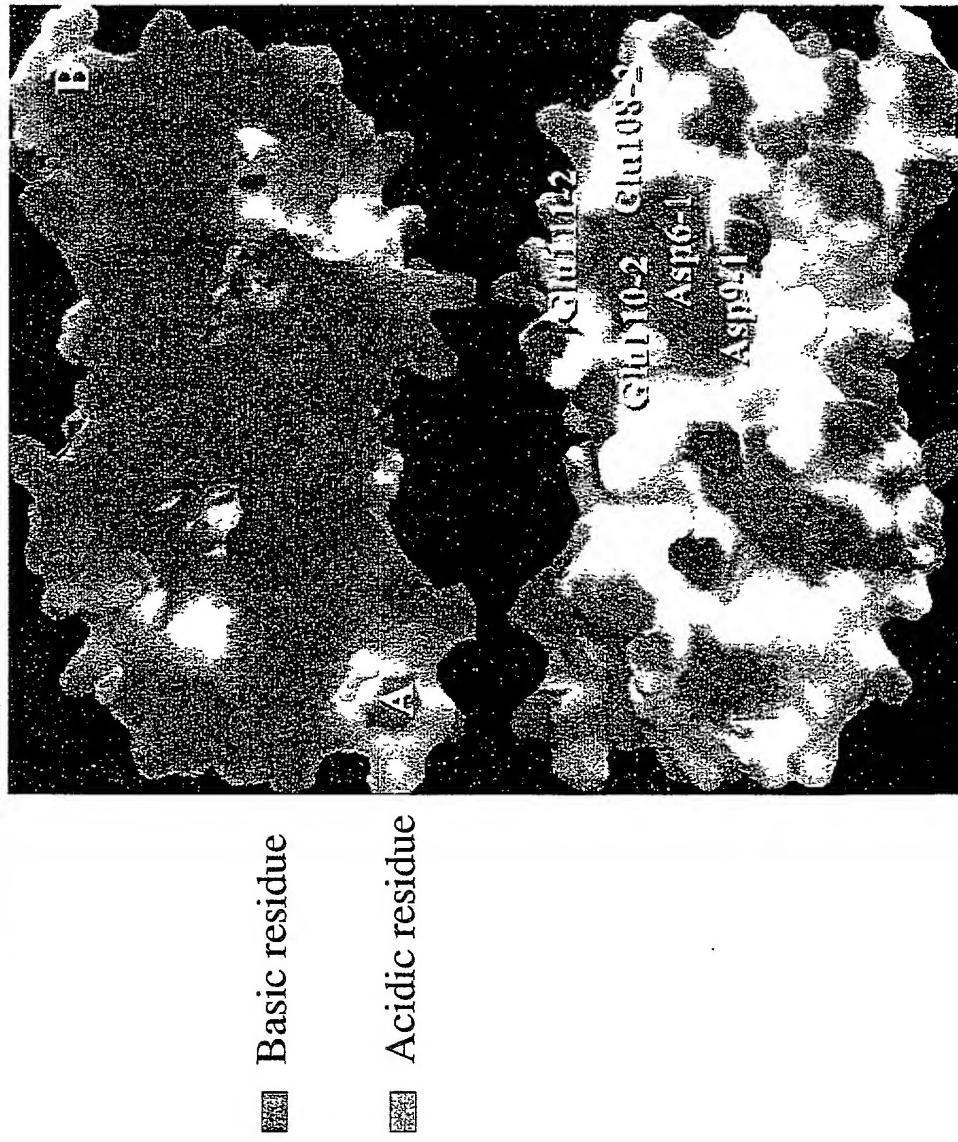


H: residues involved in dimerization, A: acidic residues involved in activation,
D: basic residues involved in DNA binding

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FIG. 12 A & B

Electrostatic potential surface of the dimeric SarR structure



The distance from A to B is 71 Angstrom (20 nt) but the inner distance is 92 Angstrom (27 nt)

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FIG. 13A

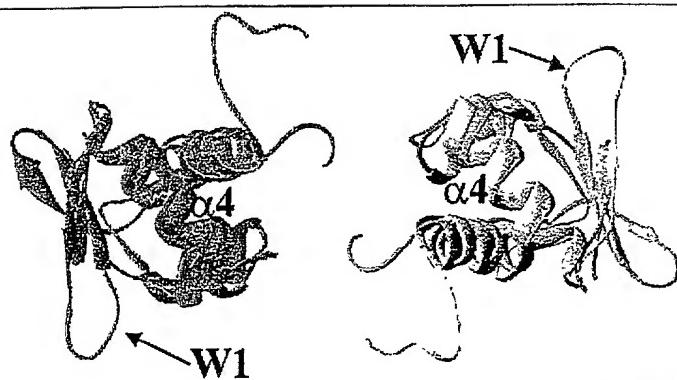


FIG. 13B

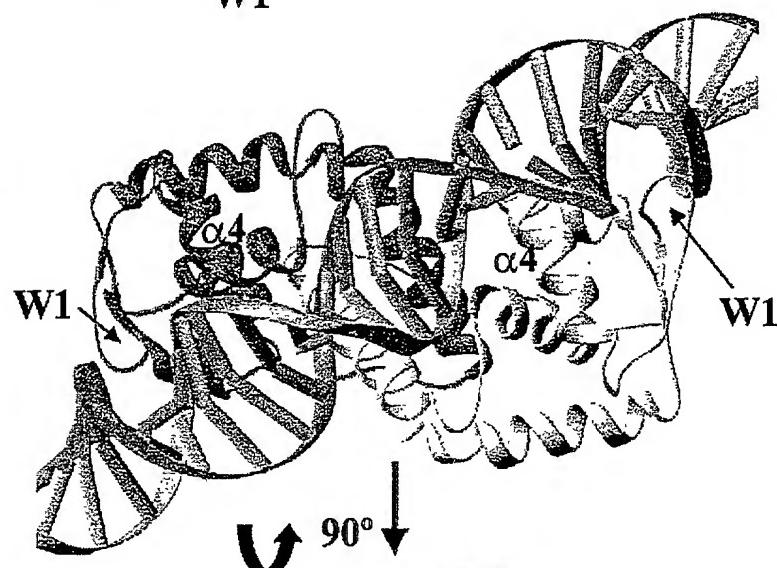


FIG. 13C

